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FINAL STAGE SURGICAL TREATMENT OF THE CONJOINED TWINS OF MASASI, TANZANIA: CASE REPORT.
J.K. Shija, FRCSEd, Professor of Paediatric Surgery and P.J. Ngiloi M.Med. (Dar), Surgical Specialist, Division of Paediatric Surgery, Muhimbili Medical Centre, University of Dar es Salaam, Tanzania.

Request for Reprints to: Professor. J.K. Shija, P.O. Box 827, Dar es Salaam, Tanzania.

FINAL STAGE SURGICAL TREATMENT OF THE CONJOINED TWINS OF MASASI, TANZANIA: CASE REPORT

J.K. SHIJA and P.J. NGILOI

SUMMARY

A set of female pygopagus conjoined twins, Agnes and Helen, were born to Margaret Paulo, 22, primigravida, at Masasi in Southern Tanzania on 2/4/98. They were referred from Ndanda Mission Hospital to Muhimbili Medical Centre (MMC) on 28/5/98 and from MMC to the Children's Hospital, Cape Town, South Africa, where they were successfully separated by Prof. H. Rode and his Team on 28/10/98. Upon separation each Twin had an anorectoplasty and a sigmoid colostomy, with which they returned to Tanzania after post-operative recovery. The colostomy closures were performed at MMC by Prof. J.K. Shija, assisted by Dr. P.J. Ngiloi, on 11/3/99 (Helen) and 18/3/99 (Agnes), after completion of Anorectal treatment. They were discharged from MMC on 16/4/99, in satisfactory condition.

INTRODUCTION

Conjoined twins (CTs) are very rare, with a variable reported world incidence of about 1 in 50,000 to 1 in 250,000 births(1,2) and the Pygopagus type is among the rarer forms of the congenital anomaly(3). South Africa is one of the regions where conjoined twins generally seem to occur more commonly than elsewhere in the world(4), while in Tanzania the conjoined twins of Masasi were only the second set of CTs to be managed at the MMC Paediatric Surgical service, after the first set from Shinyanga (of the Omphalopagus type) were successfully separated in 1994(1). The present case is of interest because of its extreme rarity, and the fact that it is the first such case to have been successfully managed through the collaboration of Tanzanian and South African surgeons.

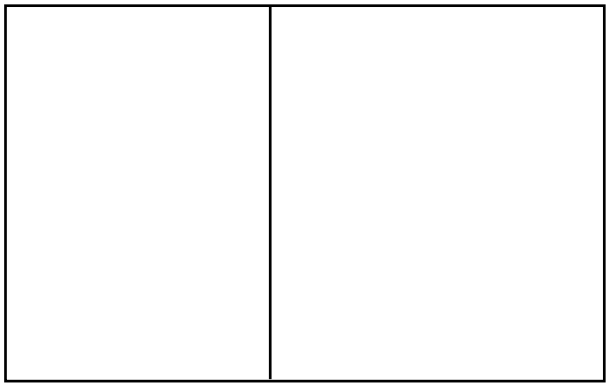
CASE REPORT

A set of female conjoined twins, later named Agnes (1st twin) and Helen, were born to Margaret Paulo, a primigravida aged 22, at Mkomaindo Government Hospital, Masasi, in Southern Tanzania, on 2/4/98, with a combined birth weight of 3.760 kgms. It was a normal (assisted) delivery of her first pregnancy. Because of the apparent complexity of the case the twins were first referred to the nearby Ndanda Mission Hospital under the care of Dr. Birgitta Schnell (surgeon), who later referred them to the MMC Paediatric Surgical service. They were admitted on 28/5/98 in good general condition and weighing 6.40 kgms.

Following clinical and radiological evaluation the CTs were noted to be joined at the buttocks and perineum, as a result of which the diagnosis of Pygopagus Conjoined Twins was made (Figures 1 and 2). They had a common anal opening but the number of vaginal and urethral openings could not be clearly determined. Further tests were done, including a CT scan, to determine the full extent of their anatomical union. On the basis of the apparent complexity of their union, and considering the limited resources at MMC, it was decided to refer the CTs to South Africa (after due consultation) for separation. They were admitted to the Children's Hospital (RCCH) in Cape Town on 13/10/98 under the care of Prof. H. Rode, Chief of Paediatric Surgery.

Figure 1

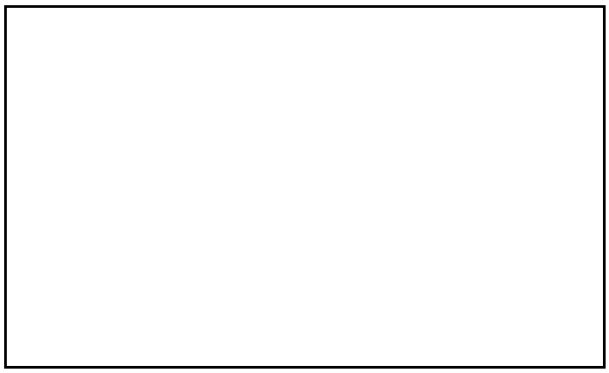
Conjoined twins, Agnes(L) and Helen(R), before separation (June 1998). (a) Frontal view and (b) Perineal view



(a) (b)

Figure 2

Lateral plain x ray view of the conjoined twins, before separation (June 1998)



Further investigations at the RCCH, including the use of Magnetic Resonance Imaging (MRI), confirmed the diagnosis of Pygopagus conjoined twins, as well as revealing that the twinsonly shared a common anal canal but had separate vaginal and urethral openings, and also had separate spinal and other bony structures. They were thereafter successfully separated on 28/10/98, in a 12 hour surgical procedure which included performing an anorectoplasty and a defunctioning Sigmoid Colostomy on each twin. Figure 3 shows Agnes and Helen after separation in South Africa.

Figure 3

Conjoined twins after separation in South Africa, with their mother and hospital staff (November 1998)

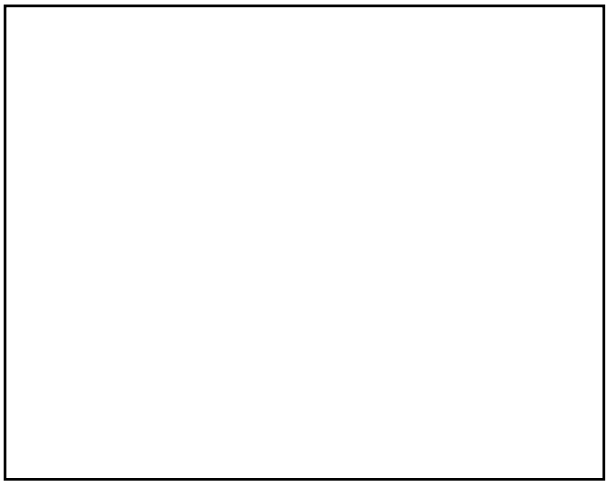
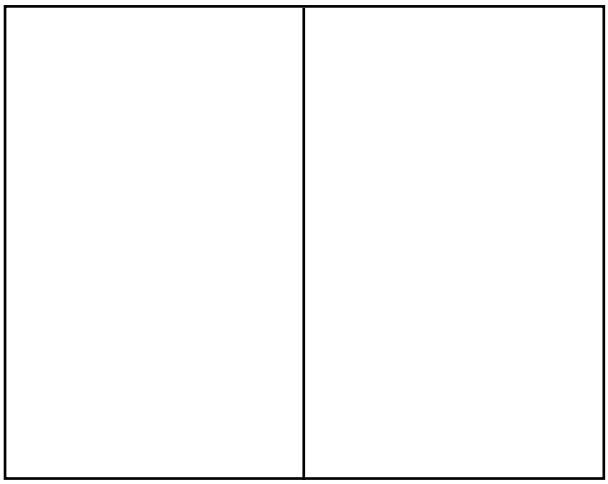


Figure 4

Twins with their mother, ready for discharge (April 1999) (a) Agnes and (b) Helen



(a) (b)

Upon the twins' return to Tanzania on 14/11/98, they were re-admitted to MMC for the final stage surgical treatment, which included further care of the Anorectoplasties and eventual closure of the colostomies. The colostomy closures were performed by Prof. J.K. Shija, assisted by Dr. P.J. Ngiloi, on 11/3/99 (Helen) and 18/3/99 (Agnes), and both twins had an uneventful recovery. They were subsequently discharged on 16/4/99 to return to Masasi, having normal bowel function (Figure 4).

DISCUSSION

The 1998 conjoined twins of Masasi are the first Pygopagus Twins ever reported from Tanzania, but are the second set of CTs to have been managed at MMC, Dar es Salaam, after the Omphalopagus Conjoined Twins of Shinyanga were successfully separated in 1994 (1). From the previous MMC experience (1), and that of others (4,5), it has been learned that Good Team Work in the evaluation, separation, and care of conjoined twins is the decisive factor for a successful outcome in most of the successful separations. The other important factors include the type and complexity of the Anatomical ((and physiological) union, the extent of organ sharing, and the general condition of the conjoined twins, as well as the expertise and facilities or resources available at the institution where the twins are treated.

The successful outcome of the management of the conjoined twins of Masasi is a good illustration of the benefit that can result from the collaboration of Tanzanian and South African surgeons and other medical experts. Further inter-African medical cooperation should therefore be positively encouraged, especially as South Africa is currently one of the world's acknowledged leaders in this field.

In conclusion, a rare but interesting case of conjoined twins from Masasi, Tanzania, has been presented, the successful management of which marks an encouraging trend in inter-African medical co-operation.

ACKNOWLEDGEMENTS

We wish to thank our colleagues and the staff of the Paediatric Surgical Service of MMC, and Dr. V. Mwafongo and his Anaesthetic Team, for their helpful role in the successful management of the conjoined twins; the MMC Medical Illustration Unit for most of the illustrations; and the management of MMC and the Tanzania Ministry of Health for their supportive role in this very special endeavour. We are also grateful to Prof. H. Rode and his South African Surgical Team for the successful separation of the twins, and to Dr. Birgitta Schnell of Ndanda Mission Hospital and the Doctors of Mkomaindo Government Hospital for the initial and continuing care of the twins, and for having referred them to our care in the first place.

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